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<110> Finler MBDett B. Kenny, Brendant DeVinney, Rebekah Stein, Marcus

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<130> UBCV-0004

<140> US 09/189,415

<141> 1998-11-10

<150> US 60/065,130

<151> 1997-11-12

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<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Escherichia coli

Arg Gln Pro Lys Asp Val Asp Thr Arg Ser Val Gly Val Gly Ser Ala 195 200 205 Ser Gly Ile Asp Asp Gly Val Val Ser Glu Thr His Thr Ser Thr Thr 210 215 220 Asn Ser Ser Val Arg Ser Asp Pro Lys Phe Trp Val Ser Val Gly Ala 225 230 235 240 Ile Ala Ala Gly Leu Ala Gly Leu Ala Ala Thr Gly Ile Ala Gln Ala 245 250 255 Leu Ala Leu Thr Pro Glu Pro Asp Asp Pro Thr Thr Asp Pro Asp 260 265 270 Gln Ala Ala Asn Ala Ala Glu Ser Ala Thr Lys Asp Gln Leu Thr Gln 275 280 285 Glu Ala Phe Lys Asn Pro Glu Asn Gln Lys Val Asn Ile Asp Ala Asn 290 295 300 Gly Asn Ala Ile Pro Ser Gly Glu Leu Lys Asp Asp Ile Val Glu Gln 305 310 315 320 Ile Ala Gln Gln Ala Lys Glu Ala Gly Glu Val Ala Arg Gln Gln Ala 325 330 335 Val Glu Ser Asn Ala Gln Ala Gln Gln Arg Tyr Glu Asp Gln His Ala 340 345 350 Arg Arg Gln Glu Glu Leu Gln Leu Ser Ser Gly Ile Gly Tyr Gly Leu 355 360 365 Ser Ser Ala Leu Ile Val Ala Gly Gly Ile Gly Ala Gly Val Thr Thr 370 375 380 Ala Leu His Arg Arg Asn Gln Pro Ala Glu Gln Thr Thr Thr Thr 385 390 400 Thr His Thr Val Val Gln Gln Gln Thr Gly Gly Ile Pro Gln His Lys 405 410 415 Val Ala Leu Met Pro Gln Glu Arg Arg Phe Ser Asp Arg Asp 420 425 430 Ser Gln Gly Ser Val Ala Ser Thr His Trp Ser Asp Ser Ser Glu 435 440 445 Val Val Asn Pro Tyr Ala Glu Val Gly Gly Ala Arg Asn Ser Leu Ser

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Ala His Gln Pro Glu Glu His Ile Tyr Asp Glu Val Ala Ala Asp Pro 465 470 475 480

Gly Tyr Ser Val Ile Gln Asn Phe Ser Gly Ser Gly Pro Val Thr Gly 485 490 495

Arg Leu Ile Gly Thr Pro Gly Gln Gly Ile Gln Ser Thr Tyr Ala Leu 500 505 510

Leu Ala Asn Ser Gly Gly Leu Arg Leu Gly Met Gly Gly Leu Thr Ser 515 525

Gly Gly Glu Thr Ala Val Ser Ser Val Asn Ala Ala Pro Thr Pro Gly 530 540

Pro Val Arg Phe Val Met Ser Ser Arg Ser Glu Leu Leu Leu Asp Arg 545 550 555 560

Phe Ala Glu Lys Ile Gly Val Gly Ser Ile Ser 565 570